| In | dex | of | Cla | ims |
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|    |     |    |     |     |



Application No.

09/843,000

Examiner

Sharmila S. Gollamudi

Applicant(s)

PAGANO ET AL

Art Unit

1616

| √ | Rejected |
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| = | Allowed  |

(Through numeral) Cancelled Restricted

Non-Elected Ν Interference

Appeal Α O Objected

|          |          |          | 1           |                |          |              | J  |                                     |  | L            |   |          |          |                 |          |   |                |          |              | L  |              |            |          |
|----------|----------|----------|-------------|----------------|----------|--------------|--|-------------------------------------|--|--------------|---|----------|----------|-----------------|----------|---|----------------|----------|--------------|--|--------------|------------|----------|
| Cla      | aim      |          |             |                |          | Date         | <u>е</u>                                     |                                     |  |              |   | Cla      | aim      |                 |          |   |                | Date     | •            |  |              |            |          |
|          |          | _        | T           |                |          |              |  | <u> </u>                            |  |              |   |          |          |                 |          |   |                |          |              |  |              |            |          |
| Final    | Original | 4/13/04  |             |                |          |              |  |                                     |  |              |   | Final    | Original |                 |          |   |                |          |              |  |              |            |          |
| 证        | Ö        | 1/4      |             |                |          |              | ļ  |                                     |  |              |   | ш        | Ö        |                 |          |   |                |          |              |  |              |            | "        |
|          | 1        | 1        | -           | <del> </del>   |          |              | -  | <del> </del>                        | <u> </u>   |              |   |          | 51       |                 | $\dashv$ | - |                |          |              | _  | -            |            |          |
|          | 2        | H        | ╁╌          | ├              | ┢        | <del> </del> | ┢  | -                                   |  |              |   |          | 52       |                 | -        | _ |                |          |              |  |              |            |          |
|          | 3        | Н        | +           | $\vdash$       | -        | ┢            | -  | -                                   |  | $\vdash$     |   |          | 53       |                 |          |   | _              |          |              |  | _            |            |          |
|          | 4        | Н        | 1-          |                |          | _            | $\vdash$                                     | -                                   |  | H            |   |          | 54       | -               |          |   |                |          |              |  |              |            |          |
|          | 5        | Н        | +-          |                | T        | <u> </u>     |  |                                     |  | Т            |   |          | 55       | H               |          |   |                |          | _            |  |              |            |          |
|          | 6        | П        | 1           | 1              | T        |              |  | Г                                   |  | Г            | 1 |          | 56       |                 |          |   |                |          |              |  |              |            |          |
| -        | 7.       | П        |             |                |          |              |  |                                     |  | Γ            | } |          | 57       |                 |          |   |                |          |              |  |              |            |          |
|          | 8        |          |             | Ι.             |          |              |  |                                     |  |              | ] |          | 58       |                 |          |   |                |          |              |  |              |            |          |
|          | 9        |          |             |                |          |              |  |                                     |  |              |   |          | 59       |                 |          |   |                | <u> </u> |              |  | <u> </u>     |            |          |
|          | 10       | Ц        | _           |                |          |              | _  | $ldsymbol{ldsymbol{ldsymbol{eta}}}$ | L  | _            |   | <u></u>  | 60       |                 |          |   |                |          |              | _  |              |            |          |
| ļ        | 11       | П        | <u> </u>    | ļ              | _        | <u> </u>     |  |                                     | ļ  |              |   |          | 61       |                 | _        |   |                |          |              | _  |              | <u> </u>   | í  -     |
| L        | 12       | Н        | 1           |                | -        | $\vdash$     | <u> </u>                                     | -                                   | $\vdash$   | -            | ł | <u> </u> | 62       | $\dashv$        |          | _ | ļ              | <u> </u> |              | -  | <del> </del> | $\vdash$   | -        |
| -        | 13       | $\dashv$ | 1           | -              | $\vdash$ | ┼            | ļ  | ├-                                  | <u> </u>   | ⊢            | - | <u> </u> | 63       | $\vdash$        | $\dashv$ |   |                | _        | _            | -  | -            | 1          | -        |
| -        | 14       | Н        | ╁           | ļ              | -        | <del> </del> | <u> </u>                                     | <u> </u>                            |  | ├            | ł |          | 64<br>65 | $\vdash$        |          |   | $\vdash$       |          | -            |  | -            |            | i        |
|          | 15       | Н        | +           | ╁              |          |              |  |                                     |  | ┢            | - |          | 66       | $\vdash \vdash$ |          |   |                | ⊢        |              |  | $\vdash$     |            | -        |
|          | 16<br>17 | ╁        | -           | $\vdash$       | -        | ⊢            | $\vdash$                                     | ├─                                  | -  | $\vdash$     | ł |          | 67       |                 | _        |   |                | $\vdash$ |              |  | $\vdash$     | ┢          | -        |
| <u> </u> | 18       | H        | +           | $\vdash$       | -        | ├            | -  | <u> </u>                            | -  | H            | 1 |          | 68       | $\vdash$        |          |   | H              |          |              | <del>                                     </del> | $\vdash$     | $\vdash$   |          |
|          | 19       | 1        |             | ╁              | -        | ╁            |  | ┢╌                                  | $\vdash$   | $\vdash$     | 1 |          | 69       |                 |          |   | _              |          |              |  |              |            | i I      |
|          | -20-     | H        | +-          | +              | 1        | -            | $\vdash$                                     | H                                   | -  | $\vdash$     | 1 |          | 70       |                 | -        |   |                |          |              | 1  |              | $\vdash$   |          |
| -        | 21       | V        |             | $\vdash$       | +        | $\vdash$     | $\vdash$                                     | $\vdash$                            | <del>                                     </del> |              | 1 |          | 71       |                 |          |   |                | $\vdash$ | -            | 1  | ┢            | t          |          |
| -        | 22       | H        | +           | <del> </del>   |          | <del> </del> |  |                                     | <del> </del>                                     | t            | 1 |          | 72       |                 |          |   |                | $\vdash$ |              |  |              |            |          |
| _        | 23       | Н        | T           | †              |          | T            | +  |                                     |  |              | 1 |          | 73       |                 |          |   |                |          |              |  |              | ļ          |          |
|          | 24       | П        | 1           |                | 1-       | T            |  | 1                                   |  | 1            | 1 |          | 74       |                 |          |   |                |          |              |  |              | T          |          |
|          | 25       | Π        | 1           |                |          |              |  |                                     |  |              | 1 |          | 75       |                 |          |   |                |          |              |  |              |            |          |
|          | 26       | П        |             |                |          |              |  |                                     |  |              | ] |          | 76       |                 |          |   |                |          |              |  |              |            |          |
|          | 27       |          |             |                |          |              |  |                                     |  |              |   |          | 77       |                 |          |   |                |          |              |  |              | L          | L        |
|          | 28       | L        |             |                | _        |              | ļ  |                                     |  | <u> </u>     |   |          | 78       | $\sqcup$        |          |   |                |          |              | L  | <u> </u>     | ļ          | _        |
|          | 29       | L        | L.          | <u> </u>       |          |              | <u>                                     </u> |                                     | <u> </u>   | <u> </u>     | 1 |          | 79       |                 |          |   | ļ              |          |              |  | <u> </u>     | <u> </u>   | _        |
|          | 30       | L        | 1           | ╙              | 1_       | <u> </u>     | -  | _                                   | ļ  | _            |   |          | 80       |                 |          | _ |                |          | <u> </u>     | <u> </u>   | _            |            | <b>∤</b> |
| <u> </u> | 31       | Ľ        | <b> </b>  _ | ╄              | _        | ļ            | <u> </u>                                     | 1                                   | <u> </u>   | _            |   |          | 81       | $\vdash$        |          | _ |                |          | <u> </u>     | <b>├</b> —                                       | ⊢            |            | <b>!</b> |
| <u> </u> | 32       | ┡        |             | <del> </del> — | $\vdash$ | ₩            | ₩  | <u> </u>                            |  | _            | - |          | 82       | $\vdash$        |          | ļ | -              |          | _            | ļ  | ├-           | <b>├</b> ─ | <b> </b> |
| -        | 33       | ┞        | ₩_          |                | -        | -            |  | -                                   | ┼  | ┼            | - |          | 83<br>84 | $\vdash$        |          |   | <del> </del> — |          | H            | ├  | ├-           | ├          | l  -     |
|          | 34       | ⊢        | ₩           | ╀              | ┼        | -            | <del> </del>                                 | -                                   | -  | ┼            | ┨ | -        | 85       | $\vdash$        | _        |   |                | -        |              |  | ╁╌           | -          | -        |
| <u></u>  | 35<br>36 | V        | 4-          | +              | $\vdash$ | $\vdash$     | +  | +                                   | -  | $\vdash$     | 1 | $\vdash$ | 86       | $\vdash$        |          |   |                | $\vdash$ | $\vdash$     | $\vdash$   | 1            |            | -        |
|          | 37       | ۲        | +           | +              | +        | 1            | t  | 1                                   | $\vdash$   | 1            | 1 | -        | 87       | $\vdash$        | _        | - | ┢              | H        | $\vdash$     | 1  | $t^{-}$      | +-         | -        |
|          | 38       | t        | +           | T              | +        | †            | T  | $\vdash$                            | $t^-$  |              | 1 |          | 88       | $\vdash$        |          |   | _              | $\vdash$ | $\vdash$     |  | T            |            | -        |
|          | 39       | t        |             | $\dagger$      | T        | t            | t  | H                                   | †  | t            | 1 |          | 89       | -               |          |   | T              | T        | <u> </u>     |  | T            | 1          |          |
|          | 40       | T        | 1           | t              | T        | T            | †  |                                     | T  | T            | 1 |          | 90       |                 |          |   |                | Г        |              | T  | T            | T          |          |
| <u> </u> | 41       | T        | †           |                | T        | 1            | 1  |                                     |  | 1            | 1 |          | 91       | П               |          |   | <u> </u>       |          | Γ            |  |              |            |          |
|          | 42       | Γ        | 1           | L              | Ľ        |              |  | L                                   |  |              |   |          | 92       |                 |          |   |                |          |              |  |              |            | ] [      |
|          | 43       |          |             |                |          |              |  |                                     |  |              | 1 |          | 93       |                 |          |   |                |          | Ľ            | L  |              |            | I [      |
|          | 44       | L        |             | L              | L        | L            |  | L                                   |  |              | 1 |          | 94       | Ш               |          | L |                |          | ļ            | <u> </u>   | $\perp$      | ـــــ      | 1        |
|          | 45       | L        | .           |                | L        |              |  | L                                   | <u> </u>   | 1            | 1 |          | 95       | Ц               |          | _ | _              | _        | <u> </u>     |  | <u> </u>     | $\vdash$   | l  ∟     |
| <u></u>  | 46       | L        | 1           |                | _        | 1            | _  | 1                                   | _  | <del> </del> | 1 |          | 96       |                 |          | _ |                | ļ        | <u> </u>     |  | 1            | 1          | Į        |
|          | 47       | 1_       | $\perp$     | 1              | 1        | _            | <b> </b>                                     | <del> </del>                        | 1  | 1            | 1 | <u> </u> | 97       | Ш               |          | _ | 1              | _        | $\vdash$     |  | $\vdash$     | -          | -        |
| <u> </u> | 48       | 1        | +-          | $\vdash$       | $\vdash$ | -            |  | 1                                   | 1  | 1            | 1 |          | 98       | <del>  </del>   |          | - | +              | ₽        | <del> </del> | $\vdash$   | -            | $\vdash$   | -        |
| $\vdash$ | 49       | ┼        |             | $\vdash$       | ╀        | -            |  | $\vdash$                            | $\vdash$   | ļ            | 1 | ļ        | 99       | $\vdash$        |          |   | -              | ļ        | $\vdash$     | ┼  | $\vdash$     | +          | <b> </b> |
| L        | 50       | 1_       |             |                |          |              | 1  | 1_                                  | 1_   | <u></u>      | 1 | <u>t</u> | 100      | Щ               |          |   | L              | <u></u>  | _            | _  | J            | 1          | j L      |

| Cla      | Date      |          |              |  |  |              |  |          |              |          |  |
|----------|-----------|----------|--------------|--|--|--------------|--|----------|--------------|----------|--|
|          |           |          |              |  | Γ"]  |              |  |          |              |          |  |
| <u>m</u> | Original  |          |              |  |  |              |  |          |              |          |  |
| Final    | į         |          |              |  |  |              |  |          |              |          |  |
| ш.       | ŏ         |          |              |  |  |              |  |          |              |          |  |
|          |           | _        |              |  |  |              |  |          | <u> </u>     | _        |  |
|          | 51        |          | _            |  |  |              |  |          | _            |          |  |
|          | 52        |          |              |  |  |              |  |          |              |          |  |
|          | 53        |          |              |  |  |              |  |          |              | 1        |  |
|          | 54        |          |              |  |  |              |  |          |              |          |  |
|          | 55        |          |              |  | _  |              | _  |          |              |          |  |
|          | 56        | $\neg$   |              |  |  | $\neg$       |  |          |              |          |  |
|          | <u>57</u> | $\dashv$ | -            |  |  | -            |  |          | _            |          |  |
|          | 57<br>58  | $\dashv$ |              | _  | _  | -            |  |          | _            |          |  |
|          | 20        | $\dashv$ | _            |  |  | -            |  |          |              |          |  |
|          | 59        | _        |              |  |  |              |  |          | _            |          |  |
|          | 60        |          |              |  |  |              |  |          | <u> </u>     |          |  |
| L        | 61        |          |              |  |  |              |  |          |              |          |  |
|          | 62        | ]        |              |  |  |              |  |          | <u></u>      |          |  |
|          | 63        |          |              |  |  |              |  |          |              |          |  |
|          | 64        |          |              |  |  |              |  |          |              |          |  |
|          | 65        |          |              |  | Г  |              |  |          |              |          |  |
| <b></b>  | 66        | -        |              |  |  | $\vdash$     |  | Ι        | $\vdash$     |          |  |
| <u> </u> | 67        |          | -            |  | $\vdash$   | $\vdash$     |  |          | $\vdash$     | $\vdash$ |  |
| <u> </u> |           | $\vdash$ |              |  | $\vdash$   | -            |  | -        | $\vdash$     | $\vdash$ |  |
|          | 68        |          |              |  | <u> </u>   |              | _  |          |              |          |  |
|          | 69        |          |              |  |  |              |  |          |              | <u> </u> |  |
|          | 70        |          |              |  |  |              |  |          |              |          |  |
|          | 71<br>72  |          |              |  |  |              |  |          |              |          |  |
|          | 72        |          |              |  |  |              |  |          |              |          |  |
|          | 73        |          |              |  |  |              |  |          |              |          |  |
|          | 74<br>75  |          |              |  |  |              |  |          |              |          |  |
|          | 75        |          |              |  |  |              |  |          |              |          |  |
|          | 76        |          |              |  |  |              |  |          |              |          |  |
|          | 76<br>77  |          |              |  |  |              | _  | _        |              |          |  |
| -        | 78        |          |              | _  | <u> </u>   |              |  | $\vdash$ |              | $\vdash$ |  |
|          | 79        |          | _            |  | -  |              |  | -        | -            |          |  |
|          | 80        |          | -            | -  |  |              |  |          | ├            | ├        |  |
|          | 00        | _        |              | $\vdash$   |  |              | ├  | -        | ┢            | H        |  |
|          | 81        |          |              | -  | -  |              | <u> </u>   |          | ⊢            |          |  |
|          | 82<br>83  |          |              | ļ  | _  |              | <u> </u>   |          | <u> </u>     | _        |  |
|          | 83        |          |              |  | <u> </u>   |              | <u> </u>   |          | <u> </u>     | L.       |  |
| L        | 84        |          |              | L  | L  |              |  |          | <u> </u>     | L_       |  |
|          | 85        |          |              |  | L_   | _            |  |          |              | L        |  |
|          | 86        |          |              | L  | L  | L            | L  |          | _            |          |  |
|          | 87        |          |              | L  | L  | L            | L  | L        | L            | L        |  |
|          | 88        |          |              |  |  |              |  | [        |              |          |  |
|          | 89        |          |              |  |  |              |  | 1        |              |          |  |
|          | 90        |          |              |  |  | Г            |  |          |              | Γ        |  |
|          | 91        | $\vdash$ | $\vdash$     | <del>                                     </del> | <del>                                     </del> | Т            |  |          |              | t        |  |
|          | 92        | $\vdash$ | <del> </del> | $\vdash$   | $\vdash$   | $\vdash$     | <del>                                     </del> | $\vdash$ | 1            | t        |  |
|          | 93        | $\vdash$ |              | -  | <del> </del>                                     |              | $\vdash$   |          | t            |          |  |
| -        | 94        | -        |              |  | $\vdash$   |              | $\vdash$   | $\vdash$ | <del> </del> | $\vdash$ |  |
|          |           | $\vdash$ | -            | -  |  | $\vdash$     |  | -        | $\vdash$     | -        |  |
| <u> </u> | 95        | $\vdash$ | <u> </u>     | -  | $\vdash$   | <del> </del> | -  | -        | ļ            | $\vdash$ |  |
|          | 96        |          | -            | $\vdash$   | ₩.   |              | -  |          | $\vdash$     | ├-       |  |
|          | 97        |          |              | <u> </u>   | <b> </b>   | <u> </u>     | $\vdash$   | ├        | ⊢            |          |  |
|          | 98        | ļ        | <u> </u>     | <u> </u>   | <del> </del>                                     | <u> </u>     | L  | 1        | <u> </u>     | ├-       |  |
|          | 99        | <u> </u> | L.           | L_   | $oxed{oxed}$                                     | ļ            | _  | <u> </u> | lacksquare   | _        |  |
| 1        | 100       |          |              |  |  | 1            |  |          | 1            |          |  |

| Cli      | aim               |                |          |  |  | Date           | )        |  |            |                  |
|----------|-------------------|----------------|----------|--|--|----------------|----------|--|------------|------------------|
|          | _                 |                |          |  |  |                |          |  |            |                  |
| ल        | Original          | ļ              |          |  |  |                |          |  |            |                  |
| Final    | įĝ                |                |          |  |  |                |          |  |            |                  |
| "        | ō                 |                |          |  |  |                |          |  |            |                  |
|          |                   |                |          |  |  |                | <u> </u> |  |            |                  |
|          | 101<br>102        |                |          |  |  |                |          |  |            |                  |
|          | 102               |                |          |  |  |                |          |  |            |                  |
|          | 103               |                |          |  |  |                |          |  |            |                  |
|          | 104               |                |          |  |  |                |          |  |            |                  |
|          | 105               |                |          |  |  |                |          |  |            | _                |
|          | 100               | Н              |          |  |  | _              | _        | _  |            |                  |
|          | 106               |                |          |  | _  |                |          |  |            |                  |
|          | 107               |                |          |  |  |                |          |  |            |                  |
|          | 108               |                |          |  |  |                |          |  |            |                  |
|          | 109               |                |          |  |  |                |          |  |            |                  |
|          | 110               |                |          |  |  |                |          |  |            |                  |
|          | 111               |                |          |  |  |                |          |  |            |                  |
|          | 112               |                |          |  |  |                |          |  |            |                  |
| $\vdash$ | 112               | $\vdash$       | $\vdash$ |  |  | -              |          |  |            |                  |
| <u> </u> | 113               |                |          |  |  |                |          |  |            |                  |
| L        | 114<br>115        |                |          |  |  | ļ              | $\vdash$ |  | Щ          | <u> </u>         |
| L        | 115               | $oxed{oxed}$   |          |  |  |                |          |  |            |                  |
| -        | 116               |                |          |  |  |                |          |  |            |                  |
|          | 117               |                |          |  |  |                |          |  |            |                  |
|          | 118               |                |          |  | -  |                |          |  |            |                  |
| <b>—</b> | 119               |                | -        |  |  | $\vdash$       | -        |  | $\vdash$   | $\vdash$         |
|          | 113               | -              | -        |  |  |                |          |  | -          | $\vdash$         |
|          | 120<br>121        | H              |          |  |  |                | <u> </u> | _  |            | <u> </u>         |
|          | 121               | _              |          |  |  |                | _        | L  |            |                  |
|          | 122               |                |          |  |  | <u> </u>       | _        |  | L.         | L                |
|          | 123<br>124        |                |          |  |  |                |          |  |            | L                |
|          | 124               |                |          |  |  |                |          |  |            |                  |
|          | 125               |                |          |  |  |                |          | _  |            |                  |
|          | 125<br>126        |                | -        | _  | _  | $\vdash$       | Т        |  |            |                  |
| <u> </u> | 127<br>128<br>129 | $\vdash$       |          |  | $\vdash$   |                | -        |  |            |                  |
| $\vdash$ | 127               |                |          |  | <del> </del>                                     | $\vdash$       |          | _  | $\vdash$   | -                |
| _        | 120               |                |          | _  | <u> </u>   |                | _        | -  | -          | -                |
|          | 129               |                |          | _  | L  | _              | _        |  | ļ          |                  |
|          | 130<br>131        | <u> </u>       |          |  | _  |                | L.       |  |            |                  |
|          | 131               |                |          | _  |  |                |          |  |            |                  |
|          | 132               |                |          |  |  |                |          |  |            |                  |
|          | 133               |                | $\vdash$ |  |  |                |          |  |            |                  |
|          | 134               |                | $\vdash$ |  | l —  |                | _        | $\vdash$   | _          |                  |
| -        | 135               | -              |          | _  |  | -              | ┢        | $\vdash$   |            |                  |
| -        | 133               |                | $\vdash$ | ⊢  |  |                | -        | -  |            | -                |
| -        | 136<br>137        | _              |          |  | <u> </u>   |                | -        |  | -          |                  |
|          | 137               |                |          | <u> </u>   | _  |                | <u> </u> | <u> </u>   | _          | <u> </u>         |
|          | 138               | L              |          | _  |  |                |          | _  | _          |                  |
|          | 139               |                |          | Ì  |  |                |          |  |            |                  |
|          | 140               |                |          |  |  |                |          |  |            | Γ                |
|          | 141               | T              |          |  | Π  | Γ              | Г        |  | Г          |                  |
|          | 142               | $\vdash$       | Ι-       | t —  | <del>                                     </del> |                |          | _  | t          | t                |
|          | 143               | $\vdash$       |          | <del>                                     </del> | <del>                                     </del> | $\vdash$       | 1        | <del>                                     </del> | t          | t                |
| -        |                   | <del> </del> — |          | $\vdash$   | -  | <del> </del> - |          | $\vdash$   | -          | <del>  -  </del> |
|          | 144               | -              | -        | <u> </u>   | -  | ⊢-             |          | -  | -          | ├                |
|          | 145               | _              | L        | L_   | <u></u>  | <b> </b>       | 1        | L  | <b> </b> _ | <u> </u>         |
|          | 146               | <u> </u>       |          |  | ļ  | $oxed{oxed}$   |          | L_   | _          | $oxed{oxed}$     |
| L        | 147               | L              | L        | L  | L  |                | L        | L  |            |                  |
|          | 148               | Γ              |          |  |  |                |          |  |            |                  |
|          | 149               |                | Г        |  | Γ  |                |          |  | Π          |                  |
|          | 150               | <b>†</b>       | $t^-$    | $\vdash$   | 1  | $\vdash$       | 1        | T  | t          | t                |
|          | 1100              | 1              | Ь.       | L  |  | ٠              | ١        | <u>t</u>   |            |                  |